Filing Date: April 11, 2001

APPARATUS AND METHOD FOR OUTPUTTING HEART SOUNDS

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### REMARKS

This responds to the Office Action dated May 5, 2005.

No amendment is made. Claims 1-22, 56-65, and 73-77 remain pending in this application.

### §103 Rejection of the Claims

Claims 20-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195, hereinafter "Carlson") in view of Koestner et al. (U.S. Patent No. 5,300,093, hereinafter "Koestner").

#### Claim 20

Applicant respectfully traverses the rejection and submits that Carlson and Koestner do not provide the recited subject matter. For example, Applicant is unable to find in Carlson and Koestner, each alone or in combination, among other things, the second control circuit configured to process the first data to detect predetermined type heart sounds, and generate control signals causing the output device to simultaneously output at least the first, second, and third sensed signals and visual indicia indicative of the detected predetermined type heart sounds and associated with locations of the predetermined type heart sounds in the first sensed signal, as recited in claim 20.

#### The Office Action states:

Although Carlson et al. fails to show an output device configured to simultaneously output multiple signals; and a second control circuit coupled to the second interface circuit and the output device configured to receive the first, second, and third data and generate control signals causing the output device to simultaneously output at least the first, second, and third sensed signals, attention is directed to Koestner, et al. which shows an external monitor and display that is coupled telemetrically to an implantable medical device which is configured to receive the first, second, third data, process the first data, and generate control signals causing the output device to simultaneously output at least the first, second, and third sensed signals and visual indicia (event annotations and markers) (Col. 27, line 9-Col. 32, line 52).

As recited in claim 20, the "first sensed signals" and the "first data" are "representative of the heart sounds." However, Applicant is unable to find in the cited portions of Koestner a signal or data representative of heart sounds. Additionally, Applicant is unable to find in the cited

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portions of Koestner visual indicia indicative of detected predetermined type heart sounds and associated with locations of the predetermined type heart sounds, as recited in claim 20.

# The Office Action asserts:

Koestner et al. teaches that the simultaneous transmission and display of electrical signals and physiological signals allows the interrelationships between mechanical and electrical cardiac signals to be set forth quickly and easily and greatly enhances the diagnostic information available to the physician (Col. 32, lines 44-52). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the external system of Carlson et al. with the external system of Koestner ....

However, Applicant is unable to find in Koestner any teaching or suggestion that its "electrical signals and physiological signals" and "mechanical and electrical cardiac signals" include a sensed signal representative of heart sounds, as the first sensed signals recited in claim 20. Therefore, Applicant respectfully submits that the proposed modification does not provide the external device recited in claim 20.

Applicant respectfully requests reconsideration and allowance of claim 20.

#### Claims 21 and 22

Applicant respectfully traverses the rejection. Claims 21-22 are dependent on claim 20. Thus, the discussion for claim 20 above is incorporated herein to support the patentability of claims 21 and 22.

Applicant respectfully requests reconsideration and allowance of claims 21 and 22.

### Allowable Subject Matter

Applicant acknowledges the allowance of claims 1-19, 59-65 and 73-77.

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# **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6965 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first elass mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this day of June, 2005.

Name

Signature